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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,532	11/29/2001	SHAWN R. GETTEMY	PALM-3698	5478

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EXAMINER

RAO, SHRINIVAS H

ART UNIT	PAPER NUMBER
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2814

MAIL DATE	DELIVERY MODE
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07/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/997,532	Applicant(s) GETTEMY, SHAWN R.	
	Examiner Steven H. Rao	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1,3-12,14-23 and 25-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1, 3-12,14-23, 25-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Applicants' amendment filed on April 23, 2007 has been entered and forwarded to the examiner May 03, 2007.

Therefore claims 1, 12 and 23 as amended by the amendment and claims 3 to 11, 14 to 22 and 25 to 32 as previously recited are currently pending in the Application .

Claims 1, 13 and 24 were previously cancelled.

Information Disclosure Statement

To date no IDS has been filed in this application.

Claim Rejections -35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

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Claims 1, 3, 5-14 and 16-25 and 27-32 are rejected under 35 U.S.C. 103(a) as being obvious over Mamiya et al. (U.S. Patent No. 5,764,322, herein after Mamiya) in view Of Kubo et al. (U.S. Patent No. 6,456,279 herein after Kubo). (for response to Applicants' arguments- see section below).

With respect to claims 1 and 12 Mamiya describe, a back light device (Mamiya fig. 14, etc., col. 8 lines 20-25) a reflective display disposed above said backlight device, comprising (a body -not entered -new matter -see above) a top surface and bottom surface (Mamiya fig. 14 # 108).

Mamiya does not specifically describe an embedded light guide which is embedded (in said body- not entered) of said reflective display between said top surface and said bottom surface which conducts light from said backlight device to an area in front of said top surface of said reflective display.

However Kubo in figure 4 and col. 8 lines 65 to col. 9 line 20 describes an embedded light guide (Kubo named light guide plate 2 and figure 11 between describes an embedded light guide (Kubo named light guide plate 2 in fig. 4 and 1E to 1K between 1A and 1B, col. 12 line 54 to col. 15 line 55- 4th embodiment) which is embedded in the reflective display (Kubo named 6- fig.4, 1a to B -fig. 11 , etc.) between said top surface and said bottom surface (Kubo 2 between 6 and bottom surface of 2-fig.4, all elements between 1A

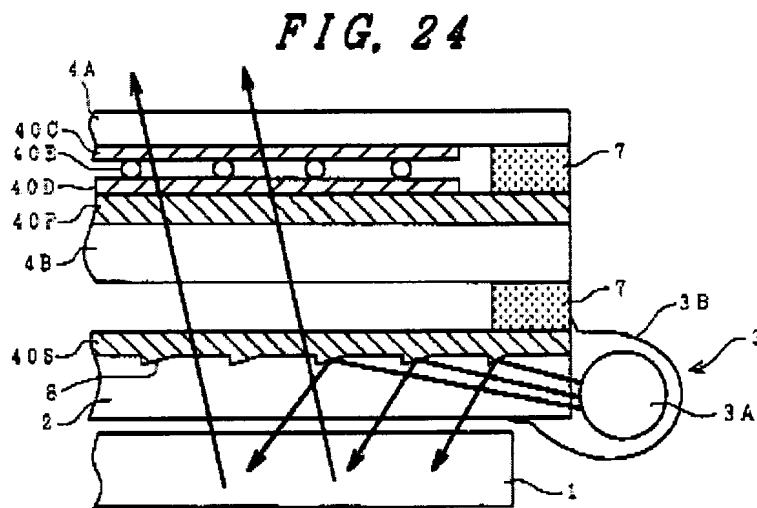
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and 1B fig.11) through said reflective display which conducts light from said backlight device to an area in front of said top surface of said reflective display which is embedded in the reflective display (Kubo named 6) between said top surface and said bottom surface (Kubo 2 between 6 and bottom surface of 2) through said reflective display which conducts light from said backlight device to an area in front of said top surface of said reflective display(Similar to Applicants' figure 4a having light guides (433) in 430.) so that an image of good visibility which has high luminance and is uniform over its entire reflective display area can be obtained even in an environment in which the external light is luminsumcient.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Kubo's embedded light guide extending through said reflective display which conducts light from said backlight device to an area above said reflective display in Mamiya's device so that an image of good visibility which has high luminance and is uniform over its entire reflective display area can be obtained even in an environment in which the external light is insufficient. (Kubo col. 6 lines 5-10).

The presently newly added limitation :

Wherein said embedded light guide is disposed above said backlight device (Kubo figs. 7, 24 , etc. and col. 10 lines 13 to 40, col. 27 line 13 -62) .



Herein Kubo describes embedded light guide 2 is disposed above backlight device 3 .

The remaining limitations of claims 1,12 : a front light reflecting film disposed above said top surface reflective surface of said reflective display (Mamiya figure 14, #116 front light reflecting film is transparent Mamiya col .2 lines 52-55).

With respect to claims 3 and 14 describe the display assembly of Claim 1, wherein said backlight device is an electro-luminescent (EL) light device. (col. 10 lines 45-46).

With respect to claims 5 and 14 describe the display assembly of Claim 1, wherein said backlight device is a cold cathode fluorescent tube (CCFT).light device. (col. 10 lines 45-46).

With respect to claims 6 and 17 describe the display assembly of Claim 1, further comprising a brightness enhancing film (BEF) disposed between said backlight device and said bottom surface of said reflective display and for directing light toward said light guide. (Col. 9 lines 10-39).

With respect to claims 7,8, 29, 18, 19,30 and 31 describes the display assembly of Claim 1., wherein said. reflective display is an electronic ink display and an electronic paper display. The limitations the reflective display is used as a electronic ink display and electronic paper display, these limitations recite the manner in which the claimed apparatus is intended to be employed. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). With respect to claim 10 describes the display assembly of Claim 1, wherein said light guide comprises a plurality of said light guides which enclose an area of said reflective display. (col. 7 lines 21-25).

With respect to claim 11 describes the display assembly of Claim 10, wherein said plurality of said light guides enclose a sub-pixel of said reflective display. (Mamiya Figure 14, col. 7 lines 35-40, col. 10 line 35).

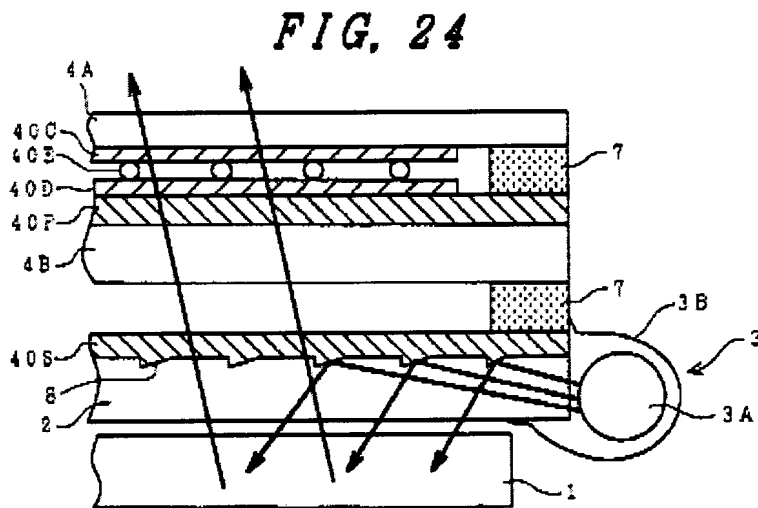
With respect to claim 21 describes the display assembly of Claim 1, wherein

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said light guide comprises a plurality of said light guides which enclose an area of said reflective display. (Mamiya col.1 lines 50-55).

With respect to claim 22 describes the display assembly Claim 12, wherein said plurality of said light guides enclose a sub-pixel of said reflective display. (Mamiya Figure 14, col. 7 lines 35-40).

With respect to claim 23 Mamiya describes a display assembly for an electronic device comprising : a backlight device, a reflective display disposed above said backlight device and comprising (a body- not entered) a top surface and a bottom surface, 4e within said reflective display and enclosing a display area within said reflective display, wherein said light guides conduct light from said backlight device to an area above said reflective display, wherein the light is reflected on to said reflective display. (Kubo figure 4) wherein said embedded light guides are disposed above said back light device (Kubo figs. 7, 24 , etc. and col. 10 lines 13 to 40, col. 27 line 13 -62) .



Herein Kubo describes embedded light guide 2 is disposed above backlight 3 a front light reflecting film disposed above said top surface of said reflective display (rejected for reasons stated under claims 1 , 1 2 etc.).

With respect to claim 25 Mamiya describes the display assembly of Claim 23, wherein said backlight device is an electro-luminescent (EL) light device. (Hirakata col.3 lines 1 7-20, etc).

With respect to claim 27 Mamiya describes the display assembly of Claim 23, wherein said backlight device is a cold cathode fluorescent tube (CCFT) light device. (col. 10 lines 45-46).

With respect to claim 28 describes the display assembly of Claim 23, further comprising a brightness enhancing film (BEF) disposed above said backlight device and below said reflective display for directing light toward said plurality

of light guides. (Col. 9 lines 10-39).

With respect to claim 32 describes the display assembly of Claim 23, wherein said plurality of light guides enclose a sub-pixel area of said reflective display. (Mamiya Figure 14, col. 7 lines 35-40).

B. Claims 4, 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mamiya et al (U.S. Patent No. 5,764,322, herein after Mamiya) in view of Kubo (U.S. Patent No. 6,456,279, herein after Kubo) as applied to claims 1-3, etc. above and further in view of Hirakata et al. (U.S. Patent No. 6,191 , 833 herein after Hirakata).

With respect to claim 4 Mamiya describes the display assembly of Claim 1. Mamiya does not specifically describe the backlight device contains at least one light emitting diode (LED). However, Hirakata in col. 3 lines 17 to 20 describes the back light can be a Led or fluorescent tube to save valuable real estate, provide a light source with longer life and also a device that does not generate as much heat thereby eliminating the need for heat removing devices like heat sink etc.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute Hirakata's Led for Mamiya's fluorescent tube in Mamiya's device to save valuable real estate, provide a light source with longer life and also a device that does not generate as much heat thereby

eliminating the need for heat removing devices like heat sink etc.

With respect to claim 15 describes the display assembly of Claim 12, Wherein said backlight device contains at least one light emitting diode (LED). (HIRAKATA col.3 lines 17-20, etc).

With respect to claim 26. The display assembly of Claim 23, wherein said backlight device contains a brightness enhancing film at least one light emitting diode (LED). (HIRAKATA col .3 lines 17-20, etc).

Response to Arguments

Applicant's arguments (that are repeated and also stated in the previous response) filed on February 15, 2006 have been fully considered but they are not persuasive for reasons set out previously and incorporated here by reference for the sake of brevity.

Applicants' contention that Kubo does not describe in its figs. 4 etc. the newly added limitation " wherein said embedded light guide is disposed above said back light device " is moot because Kubo in fig.s 7, 24 etc. describes this limitation.

Dependent claims (3 to 11, 14-22 and 25-32) were alleged to be allowable because of their dependency upon allegedly allowable claims 1, 12 and 23 , however as shown above claims 1,12 and 23 are not allowable, therefore dependent claims (3 to 11, 14-22 and 25-32) are also not allowable.

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All pending claims are Finally rejected.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. Rao whose telephone number is (571) 272-1718. The examiner can normally be reached on 8.30-5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1714. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

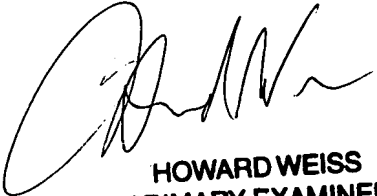
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven H. Rao

Patent Examiner

June 27, 2007.



HOWARD WEISS
PRIMARY EXAMINER